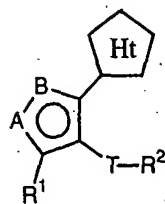


We Claim:

1. A compound of formula I:



I

or a pharmaceutically acceptable derivative or prodrug thereof, wherein:

Ht is a heteroaryl ring selected from pyrrol-3-yl, pyrazol-3-yl, [1,2,4]triazol-3-yl, [1,2,3]triazol-4-yl, or tetrazol-5-yl; said pyrrol-3-yl and pyrazol-3-yl each having R³ and QR⁴ substituents, and said triazole substituted by either R³ or QR⁴;

A-B is N-O or O-N;

R¹ is selected from R⁵, fluorine, N(R⁵)₂, OR, NRCOR, CON(R⁵)₂, SO₂R, NRSO₂R, or SO₂N(R⁵)₂;

T and Q are each independently selected from a valence bond or a linker group;

each R is independently selected from hydrogen or an optionally substituted aliphatic group having one to six carbons;

R² is selected from hydrogen, CN, fluorine, or an optionally substituted group selected from aryl, heteroaryl, heterocyclyl, an acyclic aliphatic group having one to six carbons, or a cyclic aliphatic group having four to ten carbons; wherein R² has up to one L-W substituent and up to three R⁸ substituents;

L is a C₁₋₆ alkylidene chain which is optionally substituted, and wherein up to two methylene units of L are optionally replaced by -C(O)-, -C(O)C(O)-, -CONH-,

-CONHNH-, -CO₂-, -OC(O)-, -NHCO₂-, -O-, -NHCONH-,
 -OC(O)NH-, -NHNH-, -NHCO-, -S-, -SO-, -SO₂-, -NH-,
 -SO₂NH-, -NHSO₂NH-, or -NHSO₂-;

W is selected from R⁹, CH(R⁹)₂, CH(R⁹)N(R⁹)₂, or N(R⁹)₂;

R³ is selected from R, OH, OR, N(R)₂, fluorine, or CN;

R⁴ is selected from -R⁶, -NH₂, -NHR⁶, -N(R⁶)₂, or
 -NR⁶(CH₂)_yN(R⁶)₂;

each R⁵ is independently selected from hydrogen or an
 optionally substituted aliphatic group having one to
 six carbons or two R⁵ on the same nitrogen may be taken
 together with the nitrogen to form a four to eight
 membered ring having one to three heteroatoms;

each R⁶ is independently selected from R⁵, -(CH₂)_yCH(R⁷)₂,
 or -(CH₂)_yR⁷;

y is 0-6;

each R⁷ is an optionally substituted group independently
 selected from R, aryl, aralkyl, aralkoxy, heteroaryl,
 heteroarylalkyl, heteroarylalkoxy, heterocyclyl,
 heterocyclylalkyl, heterocyclylalkoxy, hydroxyalkyl,
 alkoxyalkyl, aryloxyalkyl, or alkoxycarbonyl;

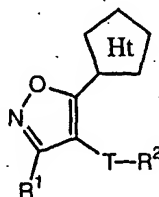
each R⁸ is independently selected from halogen, -R', -OR',
 -SR', -NO₂, -CN, -N(R⁵)₂, -NRC(O)R', -NRC(O)N(R⁵)₂,
 -NRCO₂R', -NRNRC(O)R', -NRNRC(O)N(R⁵)₂, -NRNRCO₂R',
 -C(O)C(O)R', -C(O)CH₂C(O)R', -CO₂R', -C(O)R',
 -C(O)N(R⁵)₂, -OC(O)N(R⁵)₂, -S(O)₂R', -SO₂N(R⁵)₂, -S(O)R',
 -NRSO₂N(R⁵)₂, -NRSO₂R', -C(=S)N(R⁵)₂, or -C(=NH)N(R⁵)₂;

wherein each R' is independently selected from
 hydrogen, or an optionally substituted group selected
 from aliphatic, heteroaryl, heterocyclyl, or phenyl;
 and

each R⁹ is independently selected from R⁵, R⁸, or an
 optionally substituted group selected from aryl,
 aralkyl, aralkoxy, heteroaryl, heteroaralkyl,
 heterocyclyl, or heterocyclylalkyl; provided that when

Ht is a pyrazole ring, R^1 is methyl in the 5-position, and $T-R^2$ is H in the 4-position, then Ht is other than 3-ethoxycarbonylpyrazol-5-yl; when R^1 , R^3 and $Q-R^4$ are all H, then $T-R^2$ is other than phenyl; and when R^3 is methyl in the 5 position, $Q-R^4$ is other than $C(O)OMe$ in the 4 position.

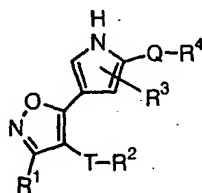
2. The compound according to claim 1 having the formula:



II

or a pharmaceutically acceptable derivative or prodrug thereof.

3. The compound according to claim 2 having the formula:



II-A

or a pharmaceutically acceptable derivative or prodrug thereof.

4. The compound according to claim 3, wherein said compound has one or more features selected from the group consisting of:

- (a) Q is $-CO-$, $-CO_2-$, or $-CONH-$;
- (b) T is a valence bond, $-NHC(O)-$, or $-NHCH_2-$;
- (c) R^1 is hydrogen or NHR ;

- (d) R^2 is an optionally substituted aryl ring having up to one L-W substituent and up to three R^8 substituents;
- (e) W is selected from R^9 , $CH(R^9)_2$, $CH(R^9)N(R^9)_2$, or $N(R^9)_2$;
- (f) R^3 is hydrogen;
- (g) R^4 is selected from $-R^6$, $-NH_2$, $-NHR^6$, $-N(R^6)_2$, or $-NR^6(CH_2)_yN(R^6)_2$;
- (h) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
- (i) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, or heterocyclalkyl.

5. The compound according to claim 4, wherein:

- (a) Q is $-CO-$, $-CO_2-$, or $-CONH-$;
- (b) T is a valence bond, $-NHC(O)-$, or $-NHCH_2-$;
- (c) R^1 is hydrogen or NHR ;
- (d) R^2 is an optionally substituted aryl ring having up to one L-W substituent and up to three R^8 substituents;
- (e) W is selected from R^9 , $CH(R^9)_2$, $CH(R^9)N(R^9)_2$, or $N(R^9)_2$;
- (f) R^3 is hydrogen;
- (g) R^4 is selected from $-R^6$, $-NH_2$, $-NHR^6$, $-N(R^6)_2$, or $-NR^6(CH_2)_yN(R^6)_2$;
- (h) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
- (i) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, or heterocyclalkyl.

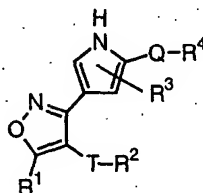
6. The compound according to claim 1 having the formula:



III

or a pharmaceutically acceptable derivative or prodrug thereof.

7. The compound according to claim 6 having the formula:



III-A

or a pharmaceutically acceptable derivative or prodrug thereof.

8. The compound according to claim 7, wherein said compound has one or more features selected from the group consisting of:

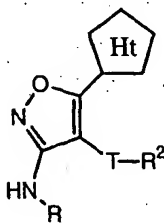
- (a) Q is -CO-, -CO₂-, or -CONH-;
- (b) T is a valence bond, -NHC(O)-, or -NHCH₂-;
- (c) R¹ is hydrogen or NHR;
- (d) R² is an optionally substituted aryl ring having up to one L-W substituent and up to three R⁸ substituents;
- (e) W is selected from R⁹, CH(R⁹)₂, CH(R⁹)N(R⁹)₂, or N(R⁹)₂;
- (f) R³ is hydrogen;
- (g) R⁴ is selected from -R⁶, -NH₂, -NHR⁶, -N(R⁶)₂, or -NR⁶(CH₂)ᵧN(R⁶)₂;
- (h) R⁶ is R⁵, -(CH₂)ᵧCH(R⁷)₂, or -(CH₂)ᵧR⁷; and

- (i) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, or heterocyclalkyl.

9. The compound according to claim 8, wherein:

- (a) Q is $-CO-$, $-CO_2-$, or $-CONH-$;
- (b) T is a valence bond, $-NHC(O)-$, or $-NHCH_2-$;
- (c) R^1 is hydrogen or NHR ;
- (d) R^2 is an optionally substituted aryl ring having up to one L-W substituent and up to three R^8 substituents;
- (e) W is selected from R^9 , $CH(R^9)_2$, $CH(R^9)N(R^9)_2$, or $N(R^9)_2$;
- (f) R^3 is hydrogen;
- (g) R^4 is selected from $-R^6$, $-NH_2$, $-NHR^6$, $-N(R^6)_2$, or $-NR^6(CH_2)_yN(R^6)_2$;
- (h) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
- (i) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, or heterocyclalkyl.

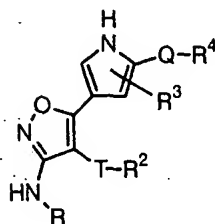
10. The compound according to claim 1 having the formula:



IV

or a pharmaceutically acceptable derivative or prodrug thereof.

11. The compound according to claim 10 having the formula:



IV-A

or a pharmaceutically acceptable derivative or prodrug thereof.

12. The compound according to claim 11, wherein said compound has one or more features selected from the group consisting of:

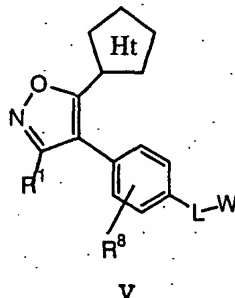
- (a) Q is -CO-, -CO₂-, or -CONH-;
- (b) T is a valence bond, -NHC(O)-, or -NHCH₂-;
- (c) R² is an optionally substituted aryl ring having up to one L-W substituent and up to three R⁸ substituents;
- (d) R³ is hydrogen;
- (e) R⁴ is selected from -R⁶, -NH₂, -NHR⁶, -N(R⁶)₂, or -NR⁶(CH₂)_yN(R⁶)₂;
- (f) R⁶ is R⁵, -(CH₂)_yCH(R⁷)₂, or -(CH₂)_yR⁷; and
- (g) R⁷ is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclalkyl group.

13. The compound according to claim 12, wherein:

- (a) Q is -CO-, -CO₂-, or -CONH-;
- (b) T is a valence bond, -NHC(O)-, or -NHCH₂-;
- (c) R² is an optionally substituted aryl ring having up to one L-W substituent and up to three R⁸ substituents;
- (d) R³ is hydrogen;
- (e) R⁴ is selected from -R⁶, -NH₂, -NHR⁶, -N(R⁶)₂, or -NR⁶(CH₂)_yN(R⁶)₂;

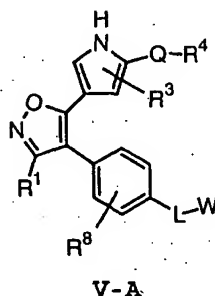
- (f) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
 (g) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclalkyl group.

14. The compound according to claim 1 having the formula:



or a pharmaceutically acceptable derivative or prodrug thereof.

15. The compound according to claim 14 having the formula:



or a pharmaceutically acceptable derivative or prodrug thereof.

16. The compound according to claim 15, wherein said compound has one or more features selected from the group consisting of:

- (a) Q is $-CO-$, $-CO_2-$, or $-CONH-$;
 (b) R^1 is hydrogen or NHR ;
 (c) W is selected from R^9 , $CH(R^9)_2$, $CH(R^9)N(R^9)_2$, or $N(R^9)_2$;

- (d) R^3 is hydrogen;
- (e) R^8 is halogen, $-R'$, $-OR'$, $-SR'$, $-NO_2$, $-CN$, or $-N(R^5)_2$;
- (f) R^4 is selected from $-R^6$, $-NH_2$, $-NHR^6$, $-N(R^6)_2$, or $-NR^6(CH_2)_yN(R^6)_2$;
- (g) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
- (h) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl group.

17. The compound according to claim 16, wherein:

- (a) Q is $-CO-$, $-CO_2-$, or $-CONH-$;
- (b) R^1 is hydrogen or NHR ;
- (c) W is selected from R^9 , $CH(R^9)_2$, $CH(R^9)N(R^9)_2$, or $N(R^9)_2$;
- (d) R^3 is hydrogen;
- (e) R^8 is halogen, $-R'$, $-OR'$, $-SR'$, $-NO_2$, $-CN$, or $-N(R^5)_2$;
- (f) R^4 is selected from $-R^6$, $-NH_2$, $-NHR^6$, $-N(R^6)_2$, or $-NR^6(CH_2)_yN(R^6)_2$;
- (g) R^6 is R^5 , $-(CH_2)_yCH(R^7)_2$, or $-(CH_2)_yR^7$; and
- (h) R^7 is an optionally substituted group selected from aryl, aralkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl group.

18. The compound according to claim 1, wherein said compound is selected from those listed in any of Tables 1-4.

19. A composition comprising a compound according to any one of claims 1-18; and a pharmaceutically acceptable carrier.

20. The composition according to claim 19 wherein said compound is formulated in a pharmaceutically acceptable manner for administration to a patient.

21. The composition according to claim 19 further comprising an additional therapeutic agent.

22. The composition according to claim 20 further comprising an additional therapeutic agent.

23. A method of inhibiting ERK or AKT activity in a biological sample, comprising the step of contacting said biological sample with a compound according to any of claims 1-18.

24. A method for treating an ERK-mediated disease in a patient comprising the step of administering to said patient a composition according to claim 19.

25. A method for treating an ERK-mediated disease in a patient comprising the step of administering to said patient a composition according to claim 20.

26. The method according to claim 25 further comprising the step of administering to said patient an additional therapeutic agent.

27. A method for treating a disease in a patient, wherein said disease is selected from cancer, stroke, diabetes, hepatomegaly, cardiovascular disease, Alzheimer's disease, cystic fibrosis, viral disease, autoimmune diseases, atherosclerosis, restenosis, psoriasis, allergic disorders, inflammation, neurological disorders, a hormone-related disease, conditions associated with

organ transplantation, immunodeficiency disorders, destructive bone disorders, proliferative disorders, infectious diseases, conditions associated with cell death, thrombin-induced platelet aggregation, chronic myelogenous leukemia (CML), liver disease, or pathologic immune conditions involving T cell activation.

28. The method according to claim 27 wherein the disease is cancer.

29. The method according to claim 28 wherein said cancer is selected from breast; ovary; cervix; prostate; testis, genitourinary tract; esophagus; larynx, glioblastoma; neuroblastoma; stomach; skin, keratoacanthoma; lung, epidermoid carcinoma, large cell carcinoma, small cell carcinoma, lung adenocarcinoma; bone; colon, adenoma; pancreas, adenocarcinoma; thyroid, follicular carcinoma, undifferentiated carcinoma, papillary carcinoma; seminoma; melanoma; sarcoma; bladder carcinoma; liver carcinoma and biliary passages; kidney carcinoma; myeloid disorders; lymphoid disorders, Hodgkin's, hairy cells; buccal cavity and pharynx (oral), lip, tongue, mouth, pharynx; small intestine; colon-rectum, large intestine, rectum; brain and central nervous system; or leukemia.

30. The method according to either of claims 28 or 29 comprising the additional step of administering to said patient a chemotherapeutic agent.

31. The method according to claim 27 wherein the disease is an autoimmune disease.

32. The method according to claim 31 wherein said autoimmune disease is selected from psoriasis, SLE Lupus,

cystic fibrosis, or conditions associated with organ transplantation.

33. The method according to claim 27 wherein the disease is a neurodegenerative disease.

34. The method according to claim 33 wherein said neurodegenerative disease is selected from Alzheimer's Disease, Parkinson's Disease, ALS, epilepsy and seizures, Huntington's disease, or stroke.

35. The method according to claim 27 wherein the disease is a cardiovascular disease.

36. The method according to claim 35 wherein said cardiovascular disease is selected from restenosis, cardiomegaly, arteriosclerosis, myocardial infarction, or congestive heart failure.

37. The method according to either of claims 35 or 36 comprising the additional step of administering to said patient a therapeutic agent for treating cardiovascular disease.

38. The method according to claim 27 wherein the disease is an inflammatory disease.

39. The method according to claim 38 wherein said inflammatory disease is selected from asthma, rheumatoid arthritis, or atopic dermatitis.

40. The method according to claim 27 wherein the disease is a liver disease.

41. The method according to claim 40 wherein said liver disease is selected from hepatomegaly or hepatic ischemia.

42. A composition for coating an implantable device comprising a compound according to claim 1 and a carrier suitable for coating said implantable device.

43. An implantable device coated with a composition according to claim 42.